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? ..subacct decomposition

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Query/Command : file tulsa

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Search statement   1
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Query/Command : deghosting

**** SS 1: Results 41**

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Search statement   2
```

Query/Command : decomposition

**** SS 2: Results 3.827**

Search statement 3

Query/Command : 1 and 2

**** SS 3: Results 2**

Search statement 4

Query/Command : PRT SS 3 MAX 1 IMG

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1 / 2 TULSA - ©TULS

Accession Number :

703371

Title :

ON P- AND S-WAVE SEPARATION AT A LIQUID-SOLID INTERFACE

Author :

HOLVIK, E; OSEN, A; REITAN, A; AMUNDSEN, L

Organiz. Source :

NORWEGIAN UNIV SCI TECHNOL; STATOIL RESEARCH CENTRE

Source :

J SEISMIC EXPLOR V 8, NO 1, PP 91-100, MARCH 1999 (12 REFS)

Numbers :

ISSN 09630651

Language :

ENGLISH; (ENG)

Index Terms :

SEISMIC DATA PROCESSING*; DATA PROCESSING*; ELASTIC WAVE*; EXPLORATION*; GEOPHYSICAL EQUIPMENT*; GEOPHYSICAL EXPLORATION*; OCEAN BOTTOM SEISMOMETER*; PARTICLE VELOCITY*; RECORDING*; SEISMIC EQUIPMENT*; SEISMIC EXPLORATION*; SEISMIC REFLECTION METHOD*; SEISMIC WAVE*; SEISMOMETER*; THREE COMPONENT RECORDING*; UPTRAVELING WAVE*; VELOCITY*; WAVE*; ALGORITHM; ANALYTICAL METHOD; ARRIVAL TIME; BOUNDARY; BOUNDARY CONDITION; BOUNDARY CONDITION (MATH); CHART; COMPOSITE REFLECTION; COMPRESSIONAL WAVE; COMPRESSIONAL WAVE VELOCIT; COMPUTING; DATA; DENSITY; DIAGRAM; DISPLACEMENT COMPONENT; ELECTRICAL EQUIPMENT; ELECTRONIC EQUIPMENT; FILTER (ELECTRICAL); FILTERING (ELECTRICAL); GEOPHYSICAL DATA; GEOPHYSICAL MODEL; HALF SPACE; HORIZONTAL VELOCITY; LIMIT; MATHEMATICAL ANALYSIS; MATHEMATICS; MODEL; MULTIPLE ARRIVAL; MULTIPLE REFLECTION; NOISE REDUCTION; PHASE VELOCITY; PHYSICAL PROPERTY; PLANE WAVE; RECORD; REFLECTION (SEISMIC); REFLECTION

RECORD; ROCK DENSITY; SEA FLOOR; SEISMIC DATA; SEISMIC MODEL; SEISMIC RECORD; SEISMIC VELOCITY; SEISMIC WAVE PROPAGATION; SEISMIC WAVE SOURCE; SHEAR WAVE; SHEAR WAVE VELOCITY; SIMULATION; SUBMARINE TOPOGRAPHY; TESTING; TIME; TOPOGRAPHY; TRACE ANALYSIS (ELECTRIC); UNDERWATER TOPOGRAPHY; VERTICAL COMPONENT; VERTICAL VELOCITY; WAVE PHENOMENON; WAVE PROPAGATION; WAVE SOURCE; WAVE VELOCITY

Main Heading :

SEISMIC DATA PROCESSING*

Category Codes :

GEOPHYSICS

Abstract :

Multicomponent seafloor recordings should be decomposed into upgoing P- and S-waves to decouple the P- and S-wave information from subsurface layers. A **decomposition** method which combines recordings of pressure with horizontal and vertical particle velocities is reviewed. This method can be modified to decompose particle velocity components directly into upgoing P- and S-waves without pressure information. The latter method is an extension of a method proposed which did not treat the effect of a finite water layer in the **decomposition**. Two major hurdles must be overcome before the new method would provide benefit to the exploration geophysicist: (1) the method requires explicit **deghosting**; and (2) information about the source wavelet. In the original method, the pressure measurement ensures that these 2 significant issues need not be addressed. In the special case where the effect of the free surface has been eliminated through appropriate demultiple of the multicomponent seafloor recordings, the new P/S **decomposition** technique is simplified considerably as no **deghosting** is required.

Publication Year :

1999

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Search statement    4
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Query/Command : his

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File : TULSA

SS  Results
  1        41  DEGHOSTING
  2      3827  DECOMPOSITION
  3         2  1 AND    2

Search statement    4
```

Query/Command : prt ss 3 1-2 fu

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AN - 703371

TI - ON P- AND S-WAVE SEPARATION AT A LIQUID-SOLID INTERFACE

AU - HOLVIK, E; OSEN, A; REITAN, A; AMUNDSEN, L

OS - NORWEGIAN UNIV SCI TECHNOL; STATOIL RESEARCH CENTRE

SO - J SEISMIC EXPLOR V 8, NO 1, PP 91-100, MARCH 1999 (12 REFS)

NU - ISSN 09630651

LA - ENGLISH; (ENG)

IT - SEISMIC DATA PROCESSING*; DATA PROCESSING*; ELASTIC WAVE*; EXPLORATION*; GEOPHYSICAL EQUIPMENT*; GEOPHYSICAL EXPLORATION*; OCEAN BOTTOM SEISMOMETER*; PARTICLE VELOCITY*; RECORDING*; SEISMIC EQUIPMENT*; SEISMIC EXPLORATION*; SEISMIC REFLECTION METHOD*; SEISMIC WAVE*; SEISMOMETER*; THREE COMPONENT RECORDING*; UPTRAVELING WAVE*; VELOCITY*; WAVE*; ALGORITHM; ANALYTICAL METHOD; ARRIVAL TIME; BOUNDARY; BOUNDARY CONDITION; BOUNDARY CONDITION (MATH); CHART; COMPOSITE REFLECTION; COMPRESSIONAL WAVE; COMPRESSIONAL WAVE VELOCIT; COMPUTING; DATA; DENSITY; DIAGRAM; DISPLACEMENT COMPONENT; ELECTRICAL EQUIPMENT; ELECTRONIC EQUIPMENT; FILTER (ELECTRICAL); FILTERING (ELECTRICAL); GEOPHYSICAL DATA; GEOPHYSICAL MODEL; HALF SPACE; HORIZONTAL VELOCITY; LIMIT; MATHEMATICAL ANALYSIS; MATHEMATICS; MODEL; MULTIPLE ARRIVAL; MULTIPLE REFLECTION; NOISE REDUCTION; PHASE VELOCITY; PHYSICAL PROPERTY; PLANE WAVE; RECORD; REFLECTION (SEISMIC); REFLECTION RECORD; ROCK DENSITY; SEA FLOOR; SEISMIC DATA; SEISMIC MODEL; SEISMIC RECORD; SEISMIC VELOCITY; SEISMIC WAVE PROPAGATION; SEISMIC WAVE SOURCE; SHEAR WAVE; SHEAR WAVE VELOCITY; SIMULATION; SUBMARINE TOPOGRAPHY; TESTING; TIME; TOPOGRAPHY; TRACE ANALYSIS (ELECTRIC); UNDERWATER TOPOGRAPHY; VERTICAL COMPONENT; VERTICAL VELOCITY; WAVE PHENOMENON; WAVE PROPAGATION; WAVE SOURCE; WAVE VELOCITY

MH - SEISMIC DATA PROCESSING*

CC - GEOPHYSICS

AB - Multicomponent seafloor recordings should be decomposed into upgoing P- and S-waves to decouple the P- and S-wave information from subsurface layers. A **decomposition** method which combines recordings of pressure with horizontal and vertical particle velocities is reviewed. This method can be modified to decompose particle velocity components directly into upgoing P- and S-waves without pressure information. The latter method is an extension of a method proposed which did not treat the effect of a finite water layer in the **decomposition**. Two major hurdles must be overcome before the new method would provide benefit to the exploration geophysicist: (1) the method requires explicit **deghosting**; and (2) information about the source wavelet. In the original method, the pressure measurement ensures that these 2 significant issues need not be addressed. In the special case where the effect of the free surface has been eliminated through appropriate demultiple of the multicomponent seafloor recordings, the new P/S **decomposition** technique is simplified considerably as no **deghosting** is required.

PY - 1999

2 / 2 TULSA - ©TULS

AN - 696802

TI - PLANE WAVE **DEGHOSTING** OF HYDROPHONE AND GEOPHONE OBC (OCEAN BOTTOM CABLE) DATA

AU - BALE, R

OS - SCHLUMBERGER GECO PRAKLA

SO - 68TH ANNU SEG INT MTG (NEW ORLEANS, 1998.09.13-18) EXPANDED ABSTR BIOGR V 1, PP 730-733, 1998 (PAP NO MC1 5; 7 REFS; ABSTRACT ONLY) (AO)

NU - ISSN 10523812

LA - ENGLISH; (ENG)

DT - (A) MEETING PAPER ABSTRACT

IT - SEISMIC DATA PROCESSING*; CABLE*; DATA PROCESSING*; ELECTRIC CABLE*; MULTIPLE REFLECTION*; NOISE REDUCTION*; OCEAN BOTTOM CABLE*; PHYSICAL PROPERTY*; PLANE WAVE*; REFLECTION (SEISMIC)*; REFLECTION COEFFICIENT*; SECONDARY REFLECTION*; SEISMIC WAVE PROPAGATION*; WAVE*; WAVE PHENOMENON*; WAVE PROPAGATION*; ELECTRICAL EQUIPMENT; ELECTRONIC EQUIPMENT; GEOPHONE; GEOPHYSICAL EQUIPMENT; HYDROPHONE; RECORDING; SEISMIC EQUIPMENT; SEISMIC RECORDING

MH - SEISMIC DATA PROCESSING*

CC - GEOPHYSICS

AB - The combination of hydrophone and geophone data recorded from ocean bottom surveys can be used to cancel downgoing energy and so remove the receiver ghost. The combination weights are determined by an overall scaling factor and the water bottom reflectivity. These are often estimated using near offset or stacked data without regard to angle dependence. The estimation of the scalar is particularly sensitive to offset, since it requires knowledge of the lag time due to travel through water layer, which varies with angle of incidence. Use of a plane wave **decomposition**, or tau-p transform, makes it possible to extend the method to larger offsets, both for the estimation of the scaling factor and for the summation itself. This results in a more effective cancellation of the receiver ghost. (Longer abstract available) (Original not available from T.U.)

PY - 1998

Search statement 4